

Title (en)
ENERGY ABSORBING LANDING GEAR/TAIL SKID INCLUDING MEANS FOR INDICATING THE MAGNITUDE OF IMPACT LOADS

Title (de)
ENERGIE ABSORBIERENDE FAHRGESTELL/HECKSTÜTZE MIT ANORDNUNG ZUM ANZEIGEN DER KRAFT EINER SCHLAGARTIGEN BELASTUNG

Title (fr)
TRAIN D'ATTERRISSAGE/PATIN DE QUEUE A ABSORPTION D'ENERGIE COMPORTANT UN SYSTEME POUR INDIQUER LA GRANDEUR DES FORCES DE CHOC

Publication
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Application
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Abstract (en)
[origin: US5927646A] PCT No. PCT/US95/11599 Sec. 371 Date Sep. 14, 1995 Sec. 102(e) Date Sep. 14, 1995 PCT Filed Sep. 14, 1995 PCT Pub. No. WO97/10145 PCT Pub. Date Mar. 20, 1997A landing gear/tail skid having at least two pivot axes (22, 24) which are subject to relative motion in response to impact loads acting on the landing gear/tail skid (10) and a contact arm (18) disposed in combination with pivot axes (22, 24). The cartridge assembly (20) includes a housing member (30) having an internal chamber (38) and a telescoping piston assembly (40) mounting within the internal chamber (38) wherein the end portions of each are disposed in combination with one of the pivot axes (22, 24). The housing member (30) and piston assembly (40), in combination, define opposed bearing surfaces (36s, 46s) which act on an energy absorbing means (50) disposed within the internal chamber (38) and intermediate the opposed bearing surfaces (36s, 46s). The energy absorbing means (50) is operative, in response to impact loads coupled thereto by the opposed bearing surfaces (36s, 46s), to react impact loads below a threshold value without change in its critical dimension (Lc) and is further operative to absorb and dissipate energy of impact loads at least equal to the threshold value by changes in its critical dimension (Lc). The contact arm (20) further includes an indication means (60) for visually indicating changes to the critical dimension (Lc) of the energy absorbing means (50) wherein the changes are indicative of the magnitude of the impact loads acting on the landing gear/tail skid (10).

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IPC 8 full level
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